REMARKS

Applicants respectfully request reconsideration of this application as amended.

Claims 1 and 6-7 have been amended. No new matter has been added.

Applicants reserve all rights with respect to the applicability of the Doctrine of

Equivalents.

Objections to Claims

Claim 7 is objected to because it is basically the same as claim 6. Applicants have

amended claim 7. Thus, Applicants respectfully submit that the objection has been

overcome.

Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 1-7 under 35 U.S.C. § 103(a) as being unpatentable

over JPEG 2000 Image Coding System Part 1, Annex D.5, J.7 and J.14, ISO/IEC 15444-7,

1st Edition, 2000-12-15 ("ISO/IEC 15444-7") in view of U.S. Patent No. 6,377,710 of

Watkins ("Watkins") and further in view of U.S. Patent No. 6,553,147 of Chai et al.

("Chai"). Applicants respectfully disagree.

Image Processing & Obviousness

Image processing is one of the most sophisticated and rapidly developing areas. Various image processing methods are out there: MPEG family, H.26x family, JPEG, JPEG 2000, BMP, GIF, TIFF, etc. The differences among them in hindsight, however, may not look "big."

For example, one of the main differences between JPEG and JPEG 2000 is that the latter adopts wavelet while the former uses DCT. Both transforms, however, are well-known and frequently used in other image processing algorithms such as MPEG family and H.26x family. Nevertheless, JPEG 2000 cannot be considered "obvious" over JPEG.

Discussion of Rejections

Claim 1 recites an image processing apparatus at a decoding stage. The image processing apparatus of claim 1 uses existing components, *i.e.*, "estimated distortion amount information" and "end of header marker" inserted in a code sequence during encoding, *for obtaining an unexpected useful result*. The end of header marker is used in claim 1 to discover errors in header information. The estimated distortion amount information is used in claim 1 for determining whether the image should be decoded or not.

ISO/IEC 15444-7 does not disclose or suggest the error detecting unit of claim 1,

"an error detecting unit to detect an occurrence of an error in *header information* for each

unit of the code sequence based on a location of *an end of packet header marker.*"

In addition, ISO/IEC 15444-7 does not disclose or suggest "an distortion amount

calculating unit to calculate a distortion amount ... using the estimated distortion

amount information ... *in which the error is detected by the error detecting unit*" and "a

comparing unit *to compare the distortion amount ... with a threshold* <u>and</u> *determine whether*

the code sequence should be decoded or not based on the comparison result" as recited in claim 1.

The distortions, $D_i{}^1$, $D_i{}^2$, $D_i{}^3$ ..., defined in ISO/IEC 15444-7 are calculated and

inserted during encoding *for rate-control, i.e.,* progressively displaying the image at the

decoding side, <u>not</u> to be used to determine whether a code sequence is decoded or not

when an error actually occurs.

Watkins does not help ISO/IEC 15444-7 render claim 1 unpatentable. Watkins

relates to debugging video encoders/decoders. For debugging, Watkins provides a

display editor module and a bitstream manager module. No part of Watkins discloses

or suggests the error detecting unit of claim 1, much less the distortion amount

calculating unit and the comparing unit of claim 1.

Chai does not cure the deficiencies of ISO/IEC 15444-7 and Watkins, either. The

segment marker in Chai is not an equivalent of the end of packet header marker of

claim 1. The end of packet header marker of claim 1 is a resynch marker inserted *in a header* to signal 'end of the header.' Accordingly, the error detecting unit of claim 1 "detect[s] an occurrence of an error in *header information.*"

By contrast, the segment marker of Chai is used to detect an error occurred within *payloads, i.e.,* image data. In Chai, the segment marker is inserted within *payloads* and encoded as part of payloads. (Fig. 4 and col. 7, ln. 23-25) (the segment marker is "entropy encoded in the same manner as other symbols that are encoded to form the payload of the packet.") Please note that Chai emphasizes the segment marker is different from resynch markers (while the end of packet header marker of claim 1 is a resynch marker) (see, for example, col. 7, ln. 42-45).

Because neither ISO/IEC 15444-7 nor Watkins nor Chai, nor a combination of these three, discloses or suggests the image processing apparatus of claim 1, Applicants respectfully submit that the rejection in view of ISO/IEC 15444-7, Watkins and Chai has been overcome.

Claim 6 contains similar, but not identical, limitations compared to the limitations of claim 1. Therefore, at least for the reason stated above, Applicants respectfully submit that the rejection of claim 6 in view of ISO/IEC 15444-7, Watkins and Chai has been overcome.

Claims 1-5 and 7 depend, directly or indirectly, from claims 1 and 6, respectively,

and thus, include the limitations set forth in their respective base claims. Therefore, at

least for the reason discussed above, it is respectfully submitted that the rejection of

claims 1-5 and 7 in view of ISO/IEC 15444-7, Watkins and Chai has been overcome.

Therefore, Applicants submit that the pending claims are in condition for

allowance and such action is earnestly solicited.

If there are any additional charges, please charge Deposit Account No. 02-2666

for any fee deficiency that may be due.

Respectfully submitted,

BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP

Date: ___April 18, 2008_____   By: ___/Michael J. Mallie/_____
                                            Michael J. Mallie
                                            Reg. No. 36,591

1279 Oakmead Parkway
Sunnyvale, California 94085-4040
(408) 720-8300